angles, very slender, soon exposed to view for half or two-thirds its length: lateral petals 4–6 mm. broad.— Native of the coast region from Washington to California; becoming naturalized on PRINCE EDWARD ISLAND: overrunning Sherwood Cemetery, near Brackley Station, *L. W. Watson*, July, 1913.

L. NOOTKATENSIS Donn. Stout, subsimple or branched, 3–6 dm. high: stem and petioles loosely and densely villous: leaves with the 6–8 oblanceolate mucronate leaflets 2.5–5.5 cm. long, densely villous beneath, rather villous above: stipules linear-setaceous, 1.5–3 cm. long, persistent: raceme becoming 1–3 dm. long: keel broad and gradually curved, not much exposed: lateral petals 8–11 mm. broad.— Native from Alaska to Vancouver Island; naturalized in Newfoundland and Nova Scotia. NEWFOUNDLAND: very abundant and overrunning the cemetery, Clarenville, August 19, 1911, *Fernald & Wiegand*, no. 5784. NOVA SCOTIA: roadsides, Chebogue Point, May 29, 1910, *C. H. Young*, Herb. Geol. Surv. Can., no. 81,283.

L. POLYPHYLLUS Lindl. Stout, simple, 7.5–12 dm. high: stem minutely and sparingly pubescent or glabrate: lower leaves on petioles 3–7 dm. long: leaflets 10–17, oblanceolate, acuminate, 6–14 cm. long, 1.5–3.5 cm. broad, glabrous or sparingly pilose: racemes becoming 2.5–6 dm. long: keel hidden, broad and gradually curved: lateral petals 6–8 mm. broad.— Native from western British Columbia to California; naturalized on PRINCE EDWARD ISLAND: dry thickets and banks along Brackley Point Road, August 1, 1912, *Fernald, Long & St. John*, no. 7678.

GRAY HERBARIUM.

VIOLA SELKIRKII IN COLORADO.

E. R. CROSS.

IN the summer of 1912 I received from Mr. C. F. Leach of Sedalia, Colo., a few pressed leaves of a violet new to me. It seemed so obviously related to the group of small white-flowered *Violae*, that I was at first inclined to identify it with *Viola blanda* Willd. Later fruiting specimens and the discovery of large numbers in blossom the following spring proved it to be *V. Selkirkii* Pursh, a species not before accredited to Colorado.

So far as I have been able to discover, its occurrence in this region is extremely local. The three known colonies are miles apart with prominent watersheds intervening, and probably mark for the species

its southernmost limit on the continent. One can but suppose that these stations indicate, as in the analogous case of *V. biflora* L., a once far more general distribution, of which the connecting links have been destroyed.

The profusion of some of our mountain violets is almost beyond belief to one who has not actually witnessed it. The principal colony of *V. Selkirkii* on Garber Creek extends for over two miles, the plants being packed so thickly in places that the ground looks purple with their blossoms. In one locality within a radius of sixty paces no less than seven distinct species are found, as follows, naming them in decreasing order of abundance:—*V. Selkirkii, V. renifolia* var. *Brainerdii* (Greene) Fernald, *V. nephrophylla, V. rugulosa* Greene, *V. adunca* Smith, *V. Nuttallii,* and *V. pedatifida;* and near the head waters of this same stream *V. palustris* L. covers the wet soil as with a carpet.

The favorite haunts of *V. Selkirkii* in our region appear to be on sloping banks, never very far from water, and under the shade of *Pseudotsuga mucronata* and *Picea pungens.* Here it occasionally reaches a height of six inches or more, and is often found in company with the two other old-world *Violae, V. biflora* and *V. palustris;* though it does not occur with them at subalpine elevations. The following table may explain the relative scarcity of the three species, tallying as it does with their lack of the natural facilities for propagation:—

V. palustris	stolons	common,	cleistogamous flowers	common;
V. Selkirkii	"	none,	"	"	common;
V. biflora	"	none,	"	"	none.

It is difficult in the case of such a markedly distinct species as *V. Selkirkii* to suggest definite affinities. The fact that the cleistogamous capsules are splotched with dark purple, the stalks often reddish-streaked, would seem to indicate that it has heretofore been placed too close to *V. palustris;* and that it belongs more properly to the *blanda-renifolia* alliance. The prominent spur and the conspicuous long auricles at the base of the sepals are strongly suggestive of the *caninae;* but the stigma is very different. One peculiar feature, which I do not remember to have seen mentioned, is the bracteoles, which at least in the cleistogamous scapes are linear and blunt (almost 'squared off') with an abrupt sharp point.

Denver, Colorado.